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STATE OF VERMONT
PUBLIC SERVICE BOARD

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DOCKET NUMBER 6812

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September 16, 2003
9:00 a.m.

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112 State Street
Montpelier, Vermont

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Technical hearing held before the Vermont Public
Service Board, at the Third Floor Conference Room,
Chittenden Bank Building, 112 State Street, Montpelier,
Vermont, on September 16, 2003, beginning at 9:00 a.m.

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P R E S E N T

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0004

1 CHAIRMAN DWORKIN: Good morning. We are
2 resuming the evidentiary hearings in docket
3 6812. I understand that in regards to Mr.
4 Deen's testimony, there is no longer an
5 outstanding dispute. Entergy agrees they can
6 come in, in return for their ability to
7 respond with testimony that we all understand
8 will be limited solely to the issues that are
9 raised by it.

10 And on that understanding, Connecticut
11 River Council agrees to having Entergy do that
12 kind of response.

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ANDREW G. GREENE

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having first been duly sworn, was

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examined and testified as follows:

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CHAIRMAN DWORKIN: Okay. Now the witness has been sworn, although in a little bit of a muddle here.

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MR. FRANKLIN: I will now call him.

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CHAIRMAN DWORKIN: We haven't called him.

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MR. FRANKLIN: We call Mr. Greene, who has been sworn in, and has taken the stand. His testimony and his exhibit which is his resume has already been stipulated to. So I'll hand you that.

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(Prefiled testimony of Andrew G. Greene was included in the original transcript only, at pages 161A through 161U, inclusive.)

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MR. FRANKLIN: And I do have, if the Board would allow me, one question of redirect.

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CHAIRMAN DWORKIN: Okay. Let's hear the question, and then we will decide whether to allow it.

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MR. FRANKLIN: Or is it rebuttal? I guess at this point.

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DIRECT EXAMINATION BY MR. FRANKLIN:

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Q. Mr. Greene.

12

A. Good afternoon.

13

Q. Good afternoon. Can you please explain why you used the NEPOOL marginal emission rate calculation to calculate the environmental externalities associated with uprate as opposed to a large combined cycle gas turbine plant as proposed by DPS witness Mr. Lamont?

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A. Well I think inherent in your question is the obvious fact that some type of plant will be avoided by the additional generation out of Vermont Yankee nuclear facility. And the question is what type of plant is it that will be avoided and what are the emission characteristics of that plant to try to answer the environmental externality question.

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There is sort of two different perspectives on

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it. One is what I would call an operational perspective

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that assumes that there are no major changes in

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investments or capital stock in the generation mix in the

4 region that supplies power. And that operational
5 perspective would be that the additional output from
6 Vermont Yankee will displace plants that are at the margin
7 of the dispatch mix in New England. Which tend to be the
8 most expensive plants that are last needed to meet the
9 load requirements in the state, in the region.

10 That's the type of calculation that NEPOOL has
11 historically done in their marginal emission rate report,
12 the last one of which covered calendar year 2001. I
13 believe that was released in December of 2002, so we will
14 be seeing a new one coming out soon.

15 That -- the alternative perspective would be a
16 planning perspective to assume that an additional amount
17 of generation from Vermont Yankee would affect investment
18 decisions and the capital stock of the generation mix in
19 New England. I did not choose to use that perspective,
20 although it has been used in other contexts, such as the
21 Department's distributed utility planning settlement where
22 there is an assumption that additional generation from
23 distributed gen units will always be essentially crowding
24 out combined cycle gas turbines.

25 That was not the approach that I used in my
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1 testimony for a few different reasons. The primary reason
2 is that the characteristics of the uprate, to me, did not
3 warrant assuming the co-gen units would be displaced by
4 the uprate. And there were two principal considerations.
5 One is that I guess you could say there was a bit of an
6 element of surprise in the magnitude of the uprate
7 quantity. As I look through materials from the Board's
8 order last year on the transfer of Vermont Yankee facility
9 as well as industry data, if there was any awareness of
10 the uprate as a source of additional generation, it was
11 probably in the magnitude of a 5 to 10 percent range, and
12 I think that was the perspective at the time expressed by
13 Entergy witnesses prior to General Electric actually
14 looking at the unit and evaluating its uprate potential.

15 So I think the market was probably not aware
16 that a 20 percent uprate was in the offing, and whatever
17 co-generation investments -- I'm sorry, combined cycle
18 investments were on the planning boards at that time, were
19 not cognizant of the uprate as has been proposed at this
20 stage.

21 The second reason I don't think the planning
22 perspective of a combined cycle gas turbine is warranted
23 is that there is a limited persistence, if you will, of
24 the output of the uprate. Their license for the Vermont
25 Yankee plant is due to expire in 2012. And absent a

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1 license renewal, any uprate of the facility will also
2 reach the end of the license in 2012. There have been
3 some questions expressed by the Board and the Department
4 as to whether the facility will even reach the 2012
5 license expiration. But at any rate, the market will
6 certainly take note of the fact that if the uprate
7 actually is approved and constructed, that the duration of
8 the uprate in the marketplace is going to be limited to a

9 few years, perhaps between 2005 when it's fully
10 implemented, and 2012 when the facility reaches the end of
11 its license period.

12 With that awareness, the market may seriously
13 discount the effect that Vermont Yankee will have -- the
14 uprate will have on the market prices available to
15 combined cycle facilities thus not deterring such projects
16 from going forward. That was the perspective that I had
17 and the reason that I chose not to use the type of avoided
18 unit methodology that was evident in the distributed
19 utility planning settlement as approved by the Board.

20 MR. FRANKLIN: Thank you. The witness
21 is available for cross-examination.

22 MS. HOFMANN: I am going to go first. I
23 do have a process question. Twice now they
24 have done the live surrebuttal when they are
25 given permission to do the written

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1 surrebuttal. Does that mean we aren't going
2 to see it in writing?

3 MR. FRANKLIN: Going to see what he just
4 said in writing?

5 MS. HOFMANN: Yeah. Obviously from the
6 transcript Kim is preparing, but does that
7 mean there is no more rebuttal testimony
8 coming from Mr. Greene?

9 MR. FRANKLIN: That's correct.

10 MS. HOFMANN: Thank you.

11 CHAIRMAN DWORKIN: The words the Board
12 used were except for responding to new issues
13 raised by Mr. Gundersen's testimony, Entergy
14 would not have a base for putting on
15 additional surrebuttal testimony whether
16 written or live.

17 MS. HOFMANN: Thank you very much.

18 CHAIRMAN DWORKIN: Mr. Shadis.

19 MR. SHADIS: A question, if I may, just
20 regarding a point of order. When we present
21 Mr. Gundersen for surrebuttal testimony
22 tomorrow, will we be permitted to have him
23 answer questions preparatory to taking the
24 stand? As this -- not preparatory to taking
25 the stand.

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1 CHAIRMAN DWORKIN: I think what you
2 mean, will you be allowed to ask him whether
3 he can present a final statement that hasn't
4 been prefiled before in a manner similar to
5 what we just heard.

6 MR. SHADIS: Thank you for restating
7 that.

8 CHAIRMAN DWORKIN: I think the answer is
9 we will let you. However, we would want it to
10 be extraordinarily tight. I'm not sure --
11 even we haven't heard an objection to the
12 several minutes of testimony we just heard
13 now. But I want you to bear in mind that the

14 concept is that it is solely to respond to
15 what could not have been said before. Okay.

16 MR. SHADIS: Thank you.

17 MS. HOFMANN: Thank you.

18 CROSS EXAMINATION BY MS. HOFMANN:

19 Q. Mr. Greene, hi. I'm Sarah Hofmann from the
20 Department.

21 A. Good afternoon, Ms. Hofmann.

22 Q. Were you aware that in the sale case regarding
23 the Vermont Yankee Nuclear Power Station that the
24 Department used a 13 percent uprate as part of the
25 economic analysis that occurred at that time?

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1 A. I did see that in the order.

2 Q. Turn to page 19 of your prefiled testimony. I
3 would just like to understand what you're doing here.

4 A. Page 13?

5 Q. 19.

6 A. 19.

7 Q. On page 19 you use a 50 dollar per
8 megawatthour illustrative replacement power cost. Which
9 you took from Mr. Sherman's direct testimony; is that
10 right?

11 A. That's correct.

12 Q. And if I remember correctly, you responded to
13 a discovery request indicating that that seemed like a
14 reasonable number to you; is that correct?

15 A. It was a number that had some basis in the
16 record, as Mr. Sherman had used it in his testimony. And
17 as the company was not submitting its own market price
18 forecast, that seemed to be a useful number to evaluate
19 the question of the economic consequences of potentially
20 lost output from the existing capacity of the Vermont
21 Yankee plant.

22 Q. Was that another way to say that it was a
23 reasonable number to use?

24 A. I wouldn't characterize the 50 dollar number
25 as a particularly accurate market price projection. It

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1 was a number that was reasonable to use for purposes of
2 exploring the lost output concern that certainly was
3 expressed during hearings earlier in the case.

4 Q. Now if I have it correctly, your -- you figure
5 a difference in the cost, and multiply that by the outages
6 provided by Dr. Burns; is that correct?

7 A. That's what I did.

8 Q. And on line 13 you state it's a potential
9 market price, do you see that?

10 A. Yes, I do.

11 Q. Would you agree with me that it is really an
12 average market price -- it's really an average market risk
13 because Dr. Burns' results are averages, not worst case?

14 A. Dr. Burns' evaluation of the two percent
15 potential impact on the capacity factor of a unit is
16 somewhat of a random distribution, if you will, that the
17 number of hours or de-rates of the facility were not
18 particularly confined to any period in time. So that is

19 parallel to the notion of looking at an average market
20 price to gauge the effect of those forced outages.

21 Q. Okay. And isn't it true that you didn't
22 calculate in your testimony what a worst case scenario
23 was, or even a worst historical case, to determine your
24 potential market risk?

25 A. That is true. The worst case would certainly
0170 -- in theory, it would be infinity. And nor did I look at
1 the alternative case which might be where the market price
2 were less than the base price under the purchase power
3 agreement, which actually, if I were to answer the
4 question today, market prices seem to be heading, relative
5 to the contract price, it might actually be on the low
6 side rather than the high side of the PPA purchase price.

8 Q. But you would agree with me that in some ways,
9 it's kind of luck of the draw, if it happens the plant
10 goes down on a day when market prices are high, the people
11 who depend on the Yankee power who aren't going to get it,
12 are going to be forced to the market, and it could be a
13 really bad day?

14 A. That's the nature of a random event. It could
15 be a bad day, and it could be a very good day. We don't
16 know. I think inherent in the point that is in your
17 question, is that the economic consequences depend on what
18 the market prices are at the time that an outage might
19 occur, and VYNPC or its member utilities have to go to the
20 market and buy replacement power.

21 Q. Am I correct in saying that even given all of
22 this, you kind of come to the determination toward the end
23 of -- page 19 on to page 20, that the Vermont capacity
24 factor will continue to increase and that the increase
25 will be more than any uprate related losses, is that a
0171 fair characterization?

1 A. My characterization is that the plant has been
2 on a trend of increasing capacity factors, when you look
3 at it on a rolling three-year average basis, which you
4 have to do given the refueling schedule. So it has been
5 trending up, and I guess the point that I was trying to
6 get across here is that the potential continuation of that
7 trend may mask, obscure, or completely negate any visible
8 effect of the forced outage issues that Mr. Burns was
9 addressing in his testimony.

11 Q. Okay. Now have you read Mr. Burns --

12 A. Yes, I have.

13 Q. Dr. Burns. This was a mistake I made
14 yesterday. You have read Dr. Burns --

15 A. I have.

16 Q. Do you have a copy of it there with you?

17 A. I sure do.

18 Q. Hey, you're my kind of guy. I was going to
19 say I have one for you. But this is great.
20 Can you turn to page 34 of Dr. Burn's
21 testimony.

22 A. Okay, I'm there.

23 Q. Okay. And let's see, starting at line 11, can

24 you read those first 3 sentences? And read them slowly so
25 the court reporter can get them.

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1 A. Vermont Yankee has shown a continual
2 improvement in reliability, e.g., availability and
3 capacity factor. This improvement has resulted in very
4 high performance for the plant. It is expected that
5 further improvements in plant capacity factor and
6 availability would be difficult to achieve, although the
7 current processes in place make that a possibility.

8 Q. Would you agree with me that that pretty much
9 states that Vermont Yankee has shown continued
10 improvement?

11 A. I certainly will.

12 Q. Would you agree with me that that statement
13 indicates that the improvement has resulted in high
14 performance?

15 A. I would also agree with that.

16 Q. Would you further agree with me that further
17 improvements would be difficult to achieve?

18 A. I'm not sure that I necessarily believe that
19 where the plant is at currently is any type of an upper
20 bound or ceiling that the plant is not capable of
21 surpassing. I did not have an opportunity to consult with
22 Dr. Burns on that particular characterization in his
23 testimony.

24 But from my preparation for the case, and
25 review of both this plant's performance as well as the

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1 trends throughout the nuclear industry, we are still
2 heading up. Capacity factors are increasing, we have
3 heard some of the reasons for that in terms of the
4 operating culture of Vermont Yankee, the benefits of a
5 larger operator with more expertise to draw on.

6 Entergy has been operating this facility for a
7 fairly short time, and I don't personally believe that the
8 full measure of benefits of a skillful operator have been
9 manifested in the capacity factors to date.

10 Q. Now you would agree with me that Dr. Burns
11 says it is expected that further improvements in plant
12 capacity factor and availability would be difficult to
13 achieve.

14 A. Well those are the -- plainly the words on the
15 paper. Difficult does not mean impossible.

16 Q. Okay. I agree with you there. So you don't
17 believe you're actually disagreeing with Dr. Burns, you
18 think you have a slightly different interpretation; is
19 that correct?

20 A. I have a more optimistic viewpoint, that I
21 believe that the future would probably result in
22 additional improvements in the capacity factor of the
23 plant. That's my personal perspective.

24 Q. Well let me see if I can sum it up. Basically
25 Dr. Burns states that maintaining continued capacity

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1 factors' improvements would be difficult, but you're
2 assuming for purposes of your testimony that capacity

3 factor improvements will happen?
4 A. Although --
5 Q. That's a yes or no question.
6 A. My testimony doesn't depend on capacity factor
7 improvements to underlie any of the calculations that I've
8 provided. I'm not making any projections that the number
9 will go up X percentage points. That's just an
10 observation in terms of where I think the plant is headed,
11 and perhaps the difficulty in discerning what might be an
12 outage related effect of the uprate versus where the plant
13 would be going absent the uprate.
14 Q. Okay. Now we have already established you're
15 probably a little more optimistic than Dr. Burns. We
16 won't put your middle name as Polly Anna. But let me go
17 back to my question.
18 Basically Dr. Burns is stating that
19 maintaining continued capacity factor improvement would be
20 difficult, but you assume capacity factor improvements
21 will continue to happen; is that correct?
22 A. Yes. I do. And if I actually could turn to
23 an area of Dr. Burn's testimony, where I would draw that
24 inference is in one of the exhibits in his testimony.
25 There is a graph that charts the three-year average
0175
1 capacity factor performance of the unit. And the trend
2 has been unmistakably up. There is no indication of it
3 leveling off or plateauing.
4 I am not personally aware of any reasons as to
5 why all of a sudden the trend should just stop dead in its
6 tracks. I can point you to that exhibit, if you're
7 interested.
8 Q. I'm actually familiar with it.
9 A. And that's not an atypical picture in terms of
10 the performance of nuclear units. That's representative
11 of where the industry has been heading generally. 2002's
12 a record year for the nuclear industry in terms of where
13 its capacity factors wound up. The trend has been up.
14 Q. Would you agree with me that even if the
15 capacity factor did continue to increase, it would
16 represent a benefit to which Vermont utilities were
17 entitled, the current power takers, and any uprate related
18 losses would still represent losses to these Vermont
19 utilities?
20 A. Can you repeat your question, please?
21 Q. Would you agree with me that even if the
22 capacity factor did continue to increase, it would
23 represent a benefit to which Vermont utilities were
24 entitled, current power takers, and any uprate related
25 losses would still represent losses to these Vermont
0176
1 utilities?
2 A. Let's take your question separately. The
3 first part is if the capacity factor increases?
4 Q. Yes.
5 A. Is that a benefit to the Vermont customers?
6 Q. Wouldn't it represent a benefit to the Vermont
7 customers, yes.

8 A. They would certainly have the option to
9 purchase that power under the purchased power agreement.
10 They would be entitled to any additional power generated
11 as the plant is currently configured. Whether that's a
12 benefit or not, depends on the relationship of the PPA
13 price to the market price.
14 It can very well be a detriment if the market
15 price were less than the PPA price. With regard to
16 reduction of output due to implications of a forced outage
17 stemming from the uprate, again there might be an effect
18 in terms of a reduced amount of power under the existing
19 PPA. And Dr. Burns has bounded that with a 2 percent
20 number in the first two years following the uprate.
21 There again, it could be a benefit, it could
22 be a detriment, depending on the regard of the PPA and
23 market prices.
24 Q. Right now is it true that the PPA is under the
25 market prices?
0177
1 A. The most recent data that I've seen in terms
2 of the market prices or the -- I think it's April through
3 August, so I'm a few weeks behind where the market is
4 right now, but I believe the Vermont zone price is
5 somewhere in the neighborhood of about 48 dollars per
6 megawatt or has been on average, about 48 dollars per
7 megawatthour. But we also have to look at the VY, Vermont
8 Yankee, nodal price which has been about -- I think it's
9 in the neighborhood of 45 dollars per megawatthour, and
10 both of those prices have an implication in terms of the
11 economic consequences to VYNPC and its constituent
12 utilities.
13 Q. Right. The nodal price can affect the price?
14 A. Absolutely, as does the zonal price.
15 Q. Can you look at page 3 of your testimony?
16 A. Can I make one additional observation,
17 however? We are dealing right now in New England with --
18 Q. Actually if you could just save it, Mr.
19 Greene, and I'm sure one of your lawyers will redirect
20 you. It is getting fairly late. It's quarter to 5, we
21 will get through what we have to get through.
22 You agreed with me on page 19, where we were
23 previously, that you used a -- basically it was an average
24 not the potential market price; is that correct?
25 A. I'm looking at Dr. Burns' testimony. That
0178
1 wasn't going to help me at all.
2 Q. No.
3 A. You wanted me to look at page 3 of my
4 testimony?
5 Q. Page 3. I'm also recalling the conversation
6 we just had, page 19 you agreed that your term potential
7 market price risk based on the information you got from
8 Dr. Burns might be more the average market price risk, did
9 we agree on that?
10 A. Again it depends on the relationship of market
11 prices to PPA prices in terms of whether we are, you know,
12 benefitting or seeing a detriment from any outage-related

13 impacts.

14 Q. Well let's go back then, because basically

15 when you used the potential market price risk, you're

16 using information you got from Dr. Burns, and you're using

17 a 50 dollar value; is that correct?

18 A. For illustrative purposes. That was the

19 intent of the calculation.

20 Q. And the market could be worse; is that

21 correct?

22 A. As well as better.

23 Q. Yes. We have been over this. And so in some

24 ways you're using an average. You're not using a worst

25 case scenario of what the market could be for potential

0179

1 cost risk?

2 A. This is an average energy price assessment.

3 I'm not looking at peak or off-peak or any particular time

4 of year. And again, that's consistent with the way the

5 forced outages would appear to potentially relate to the

6 uprate. They are randomly distributed events.

7 Q. Okay. I'm not going to -- I'm going to give

8 you an example. But what if power were at 70 dollars per

9 megawatthour, okay, would that be a worse case than the

10 potential market price risk that you have shown in your

11 testimony?

12 A. Yes, it would.

13 Q. Thank you. Now if you look at page 3 of your

14 testimony, you use on line 7 and 8 some fairly powerful

15 words to describe the benefit; substantial, vastly,

16 clearly. Do you see that?

17 A. Yes, I do.

18 Q. Now I'm going to give you a hypothetical,

19 while not a very complex one, but I would like to have you

20 answer specifically as to the hypothetical. Even though

21 you're going to want to say that's not realistic or

22 something about it, okay?

23 If I assume for the hypothesis that avoidance

24 for greenhouse gas emission is not recognized as a

25 benefit, would the benefit still be substantial as you

0180

1 said? So eliminate greenhouse gases.

2 A. Yes, I believe the benefit would be very

3 substantial.

4 Q. Okay. And what would that benefit be? And I

5 would like you to --

6 A. Do you want to calculate right here?

7 Q. I would like you to net it against the costs.

8 A. Well if you'll turn to page 6 of my rebuttal

9 testimony, here's where I took a pass at trying to hang

10 some numbers on the avoided emissions relating to the VY

11 uprate, which I think is what you're asking me about. And

12 I will say that these avoided or the environmental

13 externality values that show under the DPS value column do

14 reflect the settlement agreement that was reached between

15 the Department and the various parties in the case.

16 I will note that the original testimony

17 prepared by, I believe Mr. Chernick, supported the

18 externality method of the Department actually had
19 significantly higher values. So I was taking a much
20 lower, much more cautious conservative look.

21 Q. Mr. Greene, I don't know if this is answering
22 my questions, but I want you to exclude the greenhouse gas
23 emissions.

24 A. I was getting there.

25 Q. I know. You've actually now called our
0181

1 attention to them. I want you to exclude the greenhouse
2 gases.

3 A. I would be happy to do that. Using the
4 calculation as it appears on page 6 my value of avoided --
5 the environmental benefit due to avoided air emissions was
6 23,308,693 dollars. The greenhouse gas benefit is going
7 to be primarily from the carbon dioxide avoided emission
8 and that's a 11,700,960 dollar figure. So --

9 Q. Now I understand why you went to this page.
10 Can you please exclude all of the -- let's see -- what do
11 you call them? The following annual quantities of
12 pollution.

13 If you could exclude all of those factors, in
14 the hypothetical we are assuming that there is none of
15 these factors are recognized as a benefit.

16 A. Well you asked about greenhouse gas emissions,
17 I believe.

18 CHAIRMAN DWORKIN: She is asking a new
19 question. Let's have a new answer.

20 MS. HOFMANN: I'm asking a new
21 hypothetical. Because you are right. I asked
22 the wrong question.

23 THE WITNESS: I liked that question.

24 BY MS. HOFMANN:

25 Q. I thought you might. That's why you brought
0182

1 us to page 6. Now I'm saying pretend nothing on page 6 is
2 considered a benefit. Would you then say that the
3 benefits would be substantial and would vastly outweigh
4 potential costs?

5 A. If I am overlooking the fact that there are
6 avoided air emissions, is there still a significant and
7 substantial environmental or net benefit? That's your
8 question?

9 Q. That is my question. I hope.

10 A. I would not characterize it as vast or
11 substantial. There is still a net benefit. But it is
12 significantly smaller.

13 Q. So would you agree with me that the -- so the
14 term substantial and vast are due primarily to your
15 assumptions of credit for air emissions?

16 A. That is certainly true.

17 Q. Let's see. Can you turn to page 12 of your
18 testimony, please. And can you read just to yourself
19 lines 4 to 6, because I'm going to have a question about
20 it.

21 A. Okay.

22 Q. I'm going to ask that DPS-WKS-2 be admitted.

23 This is out of time. We can do it when Mr. Sherman's on
24 the stand, but I am going to ask him a question about it.
25 And it probably doesn't matter if it's admitted today. It
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1 just seemed easier, does anybody object?

2 MR. FRANKLIN: I think we had stipulated
3 to the admissibility.

4 MS. HOFMANN: We would move its
5 admission.

6 CHAIRMAN DWORKIN: It's admitted.

7 MS. HOFMANN: Thank you.

8 (The document marked DPS-WKS-2 was
9 admitted into evidence.)

10 BY MS. HOFMANN:

11 Q. I'm going to show you what's been marked as
12 DPS-WKS-6. Can you turn to page 46 of that document. Mr.
13 Greene?

14 A. Yes.

15 Q. And under there is a line underlined linear no
16 threshold dose response model?

17 A. Yes.

18 Q. Can you read the first paragraph under that,
19 starting the first issue?

20 A. The first issue, that of whether the U.S.
21 government should continue to use the LNT model, is a
22 question that has received considerable attention in
23 recent years. While there is some uncertainty associated
24 with the risk estimates at low radiation exposures, the
25 LNT is supported by all major consensus, scientific

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1 organizations, and is used by every national and
2 international regulatory body as a basis for its radiation
3 protection strategies. Until the evidence suggests
4 otherwise, EPA is simply following the consensus of
5 scientific organizations in continuing to use the LNT
6 model to estimate risks.

7 Q. Thank you. Now once again we are going to go
8 back to a hypothetical. Let's see if I can get this one
9 right.

10 If we, or this Board, decide to take the
11 advice of the EPA to use the linear no threshold model
12 like quote "every national and international regulatory
13 body," unquote, then this statement would be inaccurate,
14 and a risk cost would have to be provided for maximum
15 incremental radiation dose increase resulting from uprate.
16 Now back to lines 4 through 6 that I had you read to
17 yourself.

18 A. My testimony places great credence in the work
19 that Dr. Auxier has provided in the record. I am not a
20 radiological protection expert. I do not have his
21 background on the issue. And read his testimony,
22 certainly am aware of the controversy surrounding the LNT.
23 And felt that under the facts and circumstances as I know
24 them in this case, that it did not warrant adding any type
25 of financial cost in a net benefit perspective.

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1 Q. Mr. Greene, I understand you're telling me you

2 believe Dr. Auxier more than you believe Dr. Burns. I
3 understand that. And that's what your testimony is based
4 on. But it's a hypothetical.
5 So assume that the Board decides to take the
6 advice of the EPA to use the linear no threshold model,
7 then your statement in 4, 5, and 6 would be inaccurate and
8 a risk cost would have to be provided for the maximum
9 incremental radiation dose increase resulting from the
10 uprate. Given the hypothetical, not what you believe down
11 to your toes, but that hypothetical, would you agree
12 that's true?

13 A. If one were to agree with the LNT perspective,
14 as described in the paragraph you asked me to read, one
15 might certainly be able to estimate the additional doses
16 at the fence line, and perform some type of a damage
17 calculation to determine what the consequences of the
18 presumed radiological exposure might be.

19 MS. HOFMANN: Thank you, I have no
20 further questions for Mr. Greene.

21 CHAIRMAN DWORKIN: Thank you. Now is a
22 good moment to take a minute.

23 Mr. Shadis, how much examination do you
24 anticipate for Mr. Greene?

25 MR. SHADIS: I'm afraid it's a bit.

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1 CHAIRMAN DWORKIN: So --

2 MR. SHADIS: At least a half hour.

3 CHAIRMAN DWORKIN: We should be prepared
4 to go until tomorrow then.

5 MR. SHADIS: I believe that would be the
6 best course.

7 CHAIRMAN DWORKIN: Now let's raise the
8 question of Mr. Dodson. Who, if anyone, has
9 any examination for Mr. Dodson when he comes
10 tomorrow?

11 MS. HOFMANN: The Department has no
12 examination of Mr. Dodson.

13 MR. SHADIS: If I knew it would be 20
14 minutes, but the suggestion was made in this
15 morning, that if the parties agreed that Mr.
16 Dodson's testimony could be put off until the
17 October session, and because we do have such a
18 full schedule tomorrow --

19 CHAIRMAN DWORKIN: If we are going to
20 hear from him eventually, I don't think it
21 matters greatly whether we hear it tomorrow or
22 later, but I'm wide open to possibilities.

23 MS. BROWN: He may well be on his way as
24 we speak, so I would rather have him go
25 tomorrow.

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1 MS. HOFMANN: Had I brought this up at
2 noon, it would have helped. But I didn't.

3 CHAIRMAN DWORKIN: Okay. Then we will
4 have little, if any, for Mr. Dodson, but we
5 will attempt to move quickly when we have him.
6 Mr. Franklin.

7 MR. FRANKLIN: Just so I understand, we
8 are going to start tomorrow, though, with Mr.
9 Gundersen?

10 CHAIRMAN DWORKIN: No. We will start
11 tomorrow with Mr. Greene.

12 MS. HOFMANN: I thought we were going to
13 put Mr. Dodson in because you were concerned
14 you needed to get him on and off.

15 CHAIRMAN DWORKIN: I'm sorry.
16 Apparently the parties have had a set of
17 conversations we don't know about. I want to
18 make sure I understand where we are on this.
19 We are in the middle of Mr. Greene's
20 examination. And Mr. Shadis has consistently
21 said he would want up to 45 minutes of time.
22 Today he's saying he may be able to cut it to
23 a half an hour. Clearly a substantial block
24 of time. In ordinary course of business we
25 would just continue.

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1 If there are rearrangements to make to
2 make sure we get Mr. Dodson on and off
3 quickly, we can certainly do that. As I've
4 said to you, I may be as much as 15 or 20
5 minutes late in the morning because of a
6 commitment I need to make. Because I am happy
7 to read the transcript for either witness.

8 MS. HOFMANN: I don't have a preference.

9 MS. BROWN: My only concern is to get
10 Mr. Dodson finished tomorrow. If we can go
11 with Mr. Greene, then I understand Mr.
12 Gundersen has to be on and off tomorrow as
13 well. I think we have enough time to get both
14 of those witnesses done and still have Mr.
15 Greene go first.

16 CHAIRMAN DWORKIN: Okay.

17 MR. FRANKLIN: Sounds like we can go in
18 the due course.

19 CHAIRMAN DWORKIN: We will start with
20 Mr. Greene and do his examination. After that
21 it looks like we will take Mr. Dodson, which
22 was the already planned order. That should
23 take much less time than had originally been
24 anticipated. Then we will move to Mr.
25 Gundersen. If we have time for Ms. Wells and

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1 Mr. Lamont, we will do them, and if not, we
2 will have them later.

3 MS. HOFMANN: Thank you.

4 MR. FRANKLIN: Thank you.

5 CHAIRMAN DWORKIN: It's close enough to
6 5. We might as well break now. Again, please
7 meet with staff counsel tomorrow morning at
8 8:30. The hearings will start at 9.

9 I personally will try to get here as
10 close to 9 as I can.

11 (Whereupon, the proceedings were

adjourned at 5 p.m.)

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C E R T I F I C A T E

I, Kim U. Sears, do hereby certify that I reported by stenographic means the technical hearing re: Docket No. 6812 at the Hearing Room of the Public Service Board, Third Floor, Chittenden Bank Building, 112 State Street, Montpelier, Vermont, on September 16, 2003, beginning at 9 a.m.

I further certify that the foregoing testimony was taken by me stenographically and thereafter reduced to typewriting and the foregoing 189 pages are a transcript of the stenograph notes taken by me of the evidence and the proceedings, to the best of my ability.

I further certify that I am not related to any of the parties thereto or their Counsel, and I am in no way interested in the outcome of said cause.

Dated at Burlington, Vermont, this 18th day of September 2003.

Kim U. Sears, RPR

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